



# SUNY Cortland Sports Information

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## Statistics 101

### Table Topic – ECAC-SIDA Workshop

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*Presented by Fran Elia, SUNY Cortland SID*

First of all, I will state for the record: "Computer statistical programs are great!" Ask any SID who has been in the business 10 or more years what it was like to compile a baseball, football or basketball box score by hand, and you'll get some wonderful stories. The advent of computer stat programs on a widespread basis has not only saved us time (to do other work, of course!), but has also allowed us to produce more information and easily get that information to the public.

However, learning how to use computer stat programs is only one component of successful stat keeping. Remember the old computer acronym GIGO – "garbage in, garbage out." Knowing what to type in to a stat program is just as important, if not more so, than how to type it in.

Covering every statistical question and issue in a table topic handout is, of course, impossible. Instead, this handout will cover some basics and show you where to find the information you need to become a better statistician.

### STAT MANUALS

It's very simple – take the time to read over the statistical manuals that are produced by the NCAA and other organizations. You don't have to memorize them, but use them to get a general feel for the stat rules of each sport. If you rely on students to keep stats at games, make sure they get a copy of the manual to look over.

The NCAA produces stat manuals for **football, basketball, soccer, volleyball and ice hockey**, in addition to publishing **baseball and softball** scoring rules. The manuals are usually sent to every SID office, but they're also available as PDF files online. To find them, go to <http://www.ncaa.org>, choose "Media & Events," then "NCAA Publications." Under that heading, select "Statistical & Instructional" to see the links to the manuals. The baseball and softball scoring rules are in the "Official Baseball/Softball Scorebook."

I've also found that some obscure baseball stat questions not answered in the NCAA rules can be answered through the Major League Baseball scoring rules. Go to <http://www.mlb.com> and at the bottom of the page choose "Official Info." Under "Official Rules" on the left is a section called "The Official Scorer."

Stat rules for **field hockey, men's lacrosse and women's lacrosse** are also available. Note that the scoring rules for women's lacrosse are considerably different from the men's game. Chip Rogers at Virginia has helped compile the field hockey and women's lacrosse manuals. The men's lacrosse manual is part of the NCAA men's lacrosse rulebook. The stat manuals can be found online at:

**Field Hockey:** [http://athletic.virginia.edu/uva/FH\\_Stats\\_Manual.pdf](http://athletic.virginia.edu/uva/FH_Stats_Manual.pdf)

**Women's Lacrosse:** <http://www.cortland.edu/athletics/wlaxstatrules06.pdf>

*(I could not find a direct link, so I put the stat rules on Cortland's site)*

**Men's Lacrosse:** Go to <http://www.ncaa.org>, then "Media & Events," "NCAA Publications" and "Playing Rules." In the men's lacrosse rules book, statistical rules can be found in Appendix II.

## **SOME COMMON STAT ISSUES**

Again, it's impossible to list every stat rule, interpretation or issue in this handout. Here are a few situations, however, that I've noticed are sometimes handled incorrectly:

### **Baseball/Softball**

\* A **Run Batted In (RBI)** is awarded to batters who walk, are hit by a pitch or reach on catcher's interference with the bases loaded. An RBI is also given if a runner scores on a fielder's choice, sacrifice bunt or sacrifice fly. RBIs are not credited when runs score on passed balls, wild pitches, double plays or errors (EXCEPTION: If an error is committed with less than two outs and, in the scorer's judgment, a runner would have scored on a clean play, an RBI is given. For example, with a runner on third and one out and the infield playing back, a ball is hit to the shortstop. An error is made on the play and the run scores. If a clean play were made, the runner would have probably scored from third anyway, so an RBI is usually given.)

\* Calculating **earned runs vs. unearned runs** is one of the more difficult tasks a scorer faces. The basic procedure is this: you "re-create" the inning as if there were no errors or passed balls to determine what runs are "earned." If an inning has no errors or passed balls, all the runs are earned.

For example, with two outs, a batter reaches on an error. Since this should be the last out of the inning, any runs scored on the pitcher from that point are unearned. Note, however, that relief pitchers who enter later in that inning do not receive the benefit of errors committed under previous pitchers. Another example: the leadoff batter in an inning reaches on an error, and the next batter hits a home run. In the re-creation of the inning, the first batter would have been out, so his run is unearned. The batter who hit the homer, however, is earned, since he would have scored either way. *Note that a batter who scores after reaching on an error is an unearned run since he shouldn't have been on base.*

Of course, some earned/unearned "re-creations" can be tricky. Remember, though, that the pitcher receives the benefit of the doubt when calculating earned runs. If you're not sure whether a runner would have gone one base or two on a hit when you "re-create" the inning, for example, then only have the runner advance one base. If you're not sure that a runner would have tagged up and scored from third on a short or medium flyout in the "re-creation", then assume that the runner would not have scored.

### **Basketball**

\* A **team rebound** is credited when the ball goes out of bounds, after a missed shot, before there is control by a player (unless the ball bounces off the rim and goes over the backboard, hits a support wire, etc. – then it's a deadball rebound). Give the rebound to the team who is awarded possession. *There cannot be a team rebound unless the ball goes out of bounds without a player first earning an individual rebound.*

\* Most **deadball rebounds** are given in the following situations:

- a) When a team misses the first of two free throws (or the first or second of three free throws). Since every missed shot needs a rebound, an offensive deadball rebound is credited in those situations to the shooting team.
- b) When, after a missed shot, a foul is committed and the play is whistled dead before either team controls the ball. In this instance, credit a deadball rebound (offensive or defensive) to the team awarded the ball. If a player has control before the foul is called, credit an individual rebound instead to that player.
- c) A shot is missed and time expires before either team can control the rebound.

\* If a player is fouled while attempting a shot and the shot does not go in, the player is not credited with a field goal attempt. If the ball does go in and the basket counts, credit the player with a field goal made and attempted.

\* Some people feel that if a player takes a certain number of dribbles before scoring a basket, an assist cannot be awarded. This is NOT TRUE. An assist is credited when a player makes, in the judgment of the statistician, the principal pass contributing directly to a field goal. If a player, for example, finds a teammate wide open at midcourt, leading to an uncontested basket after eight dribbles, an assist can be given.

### Field Hockey

- \* No assist is awarded if a player **scores off a rebound**.
- \* The only time **two assists** can be given on a goal is if there is a penalty corner “stick-stop” play. In that instance, credit an assist to the player who sent the ball from the end line and to the player who stopped the ball with the side of her stick for the eventual goal scorer to hit.
- \* If a player sends a ball toward goal **from outside the circle**, it is not considered a shot, nor is it a save for the goalie if she plays the ball, since a player can only score directly on shots taken inside the circle.

### Football

- \* In most cases, when a **penalty is assessed at or behind the line of scrimmage**, all of the yardage marked off is considered penalty yardage and the actual play does not count (offensively or defensively). **If the penalty is assessed beyond the line of scrimmage**, the play counts to that spot. For example, Team A has the ball on its own 30-yard line and is called for a penalty at the 27-yard line. If a 10-yard penalty is marked from the 27-yard line to the 17-yard line, the penalty is recorded as 13 yards (from the line of scrimmage to the new spot) and the play does not count.

In the same situation, if Team A's running back carries the ball to the 40-yard line but a penalty is called on Team A at the 35-yard line, and the ball is marked back 10 yards to the 25-yard line, then the running back is credited with a 5-yard run to the 35-yard line and Team A is assessed a 10-yard penalty to the 25-yard line.

- \* **For a sack to be recorded**, there must be a loss of yardage on the play and there must be, in the official scorer's judgment, intent to pass by the quarterback. If the quarterback looks to pass, then scrambles and is tackled for a loss, a sack is given (along with a tackle for loss). If the quarterback gets back to the original line of scrimmage, then just a tackle is recorded (no sack or tackle for loss). In some cases, you may have to wait to see where the ball is spotted to determine whether there has been a loss (and therefore a sack). If the quarterback is running an option play and is stopped for a loss, no sack is recorded (just a tackle for a loss).

### Ice Hockey

- \* If a five-minute major penalty also results in the ejection of a player, make sure to record both the five-minute penalty and a 10-minute game misconduct or disqualification.
- \* Goalie “empty net” time should include time when a goalie leaves the ice and another skater comes on the ice during a delayed penalty, in addition to late-game situations when the goalie is pulled for offensive reasons.

### Men's Lacrosse

- \* The **number of steps a player takes** after receiving a pass does not affect whether an assist is awarded on a play. Usually, if a player has to dodge a defender before scoring, no assist is awarded. An assist is normally given, however, if the player only has to dodge the goalkeeper after receiving the pass.
- \* An **extra-man goal** can be awarded even if the penalty has already expired, as long as the defender hasn't returned back to the play. This is different than ice hockey, where a power play goal is not awarded if the penalty time has expired, regardless of where the player released from the penalty box is when the goal is scored.

### Women's Lacrosse

- \* **Ground balls are awarded** when a player picks up the ball (or is closest to a ball that goes out of bounds) resulting in a change of possession. A ground ball is also awarded to either team after a shot, even if the offensive team retains possession. If a shot goes out of bounds, the player closest to the ball is awarded the ground ball. **Ground balls are not awarded** when a player wins a draw control or if an offensive player re-gains possession of a loose ball in a non-shooting situation (this is not an inclusive list of when ground balls are given).

## Soccer

- \* If a player **scores off a rebound**, the player whose initial shot is saved is credited with an assist.
- \* **Giving two assists** on a goal is OK as long as both lead to the goal and no defender is dodged. Usually a two-assist situation occurs when a player heads or one-touches a pass to another player for a quick shot.
- \* **Do not credit a save** unless the goalie stops a ball that would have otherwise gone into the goal. Making a play on a dangerous crossing pass or corner kick is not a save unless the official scorer feels that the ball was heading into the goal.

## Volleyball

- \* Two of the volleyball stats that are probably recorded incorrectly the most are **blocks** and **digs**. Here's a basic look at both categories.

A **block** is awarded when a player(s) blocks the ball that comes off an attack into the opponent's court, leading directly to a point. When a player(s) is blocking an attack attempt, one of three things can happen – 1) the player(s) is awarded a block solo or block assist; 2) the player is charged with a block error (only if whistled for a violation); or 3) the attack attempt is deflected off the blocker's hands and is kept in play by one of the teams (no block stat is given in this case). Note that blocks are only given on attack attempts (not free hits) and are only given if they lead directly to a point.

If two or three players go up to block and attack and are successful, each is awarded a block assist, even if only one player actually touches the ball. A block solo is only given if one player goes up to block and is successful.

A **dig** is awarded when a player passes the ball that has been attacked by the opposition. Digs are given only when players receive an attacked ball and it is kept in play. Digs are not awarded when a ball is brought up off a "put back" (blocked ball), off a "free hit" by the other team or on a serve reception.